

Monitoring COVID-19 Impacts on Refugees in Ethiopia



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OVERVIEW



This document provides basic information about the High Frequency Phone Survey of Refugees (HFPS-R), implemented in response to COVID-19 in Ethiopia. It describes the sampling frame, questionnaire design, weighting procedures, and survey data collection strategies. The survey aims at monitoring the impacts of the COVID-19 pandemic on camp-based refugees and out-of-camp refugees. The COVID-19 pandemic and its effects create an urgent need for timely data and evidence to help monitor and mitigate the impact of the crisis. Due to limits on face-to-face surveys the HFPS-R is undertaken via the phone. The survey results will be used to inform government policies and stakeholder interventions aimed at improving the wellbeing of refugees during and after the COVID-19 crisis in Ethiopia.

The HFPS-R is fielded alongside the high-frequency phone survey of national households (HFPS-HH). The HFPS-HH monitors the economic and social impacts of and responses to the COVID-19 pandemic on Ethiopian national households, by calling a sample of households every three to four weeks over a six months period for a total of seven survey rounds at the national level. The World Bank-UNHCR Joint Data Center on Forced Displacement (JDC) has provided funding for a booster sample of forcibly displaced populations to be added to the national surveys of the HFPS-HH¹. The World Bank Ethiopia country team included two rounds of the HFPS of the impact of COVID-19 on refugees in Ethiopia. Round 1 of data collection for the refugee stratum occurs simultaneously with round 6 of the national HFPS operation. Data collection for the first round started on September 24, 2020 and ended on October 17, 2020 (three weeks in total). Round 2 of data collection for the refugee stratum occurs simultaneously with round 7 of the national HFPS operation. Data collection for the second round went from October 28 to November 21, 2020. The refugee booster sample aimed at collecting information from 1,650 refugee households per round in three locations around UNHCR sub-offices in Ethiopia. The sample size is representative for refugee households with access to a mobile phone for both camp and non-camp-based refugees.

QUESTIONNAIRE



Table 1 presents a brief description of the HFPS-R questionnaire. The questionnaire for the refugee sample was updated to include some relevant questions and a new module on social relations and refugee views about society and the government of Ethiopia. These additions help to deeply understand the challenges encountered and perceptions of refugees in Ethiopia.

Table 1. Modules and Descriptions of the Questionnaire of the High Frequency Phone Survey of Households

Section/ Module	Description
Cover	Household location identification; household head's name; and telephone numbers. <i>This information is pre-filled from the ESS 2018/19.</i>
Household Roster	Roster of individuals living in the household; age; sex; and relationship to the household head. <i>This information is pre-filled from the ESS 2018/19. It is updated for changes.</i>
Interview information	Seeking respondent's consent, reason for not accepting to be interviewed, and request for rescheduling the interview to a later agreed date
Household Information	Respondent's name, gender, household's registration number, year of household arrival, country of origin, place of current residence (inside or outside camp), and the name of refugee camp for camp-based respondents

¹ For an overview on the sampling methodology used for the national sample, please refer to: <https://www.worldbank.org/en/country/ethiopia/brief/phone-survey-data-monitoring-covid-19-impact-on-firms-and-households-in-ethiopia>

Camp Information	Name of UNHCR camp serving the household. These include 3 UNHCR sub-offices (Addis Ababa, Shire, and Jijiga) and the names of various camps were also collected
Knowledge	Respondent's knowledge about the pandemic including questions on knowledge of to reduce the risk of contracting coronavirus. Respondents knowledge of steps that the government has taken to reduce spread of corona virus. <i>This module is only included in round 1.</i>
Behavior	Selected questions on the respondents' practice in the week preceding the survey. The questions include frequent hand washing and avoiding handshake/physical greetings; avoiding gatherings. <i>This module is only included in round 1.</i>
Access to Basic Needs	This section includes: (i) Questions if the respondent's household was able to buy medicines and selected staple items that the household needed to buy in the week preceding the survey and the reasons for no access; (ii) School attendance status children for households with school aged children and availability of learning activities during the school closures; (iii) access health care services and (iv) access to financial services (banks and ATMs). School closure due to the Coronavirus and the stakeholder group responsible for running the schools included.
Employment & Non-farm business	Respondents work status in the week preceding the survey; job loss and its reasons; employers and their sectors; changes in work arrangements; profile of household owned business and changes; employment and job loss status of non-respondent household member
Income, Loss and Coping Strategies	Types of household income sources - farming, personal income from wage employment or pension, own non-farm business; remittances from within Ethiopia and abroad income from properties, investments and savings; and support from government and NGOs and other charitable organizations; Changes in income sources after the outbreak; changes in household income sources and total income received in the past 4 weeks before the survey; and coping strategies for income loss.
Social Relations	This new module includes refugee perception of trust, including trusting people and trusting the Ethiopian government views on the government's willingness and ability to address the COVID-19 pandemic and ability to provide enough assistances in response to the crisis. They are asked about their intentions to follow the government's guideline for preventing the spread of the virus. There are questions about refugees' experience of being crime victims of various sorts in the past two weeks preceding the survey.
WASH	The Water, Sanitation, and Hygiene (WASH) module include household members' ability to access sufficient water and enough soap to wash their hands when needed in the last 7 days preceding the survey. The reasons of their inability to access water and soap were also asked.
Aid and Assistance	Assistance that anyone in the household received from institutions by type of assistance, amount received, and types of institutions provided the assistance.

SAMPLING METHODOLOGY



The sampling frame used is ARRA/UNHCR's proGRES database which contains a list of all registered refugees in Ethiopia. The sampling frame includes, among other things, information on the phone numbers of refugees by location. As refugees reside in different locations, UNHCR has sub-offices which cover a set of camps, settlements or geographic areas which host refugees to better manage and support them. There are six sub-offices: Addis Ababa, Assosa, Melkadida, Jijiga, Shire, Gambella, and Settlements around Addis Ababa. We observe large variations in phone penetration rates by location (Table 2). Only refugees living in Addis Ababa, Somali refugees served by the sub-office in Jijiga, and Eritrean refugees served by the sub-office in Shire have phone penetration rates above 10 percent.

Table 2: Distribution of the population across locations and phone penetration per location

Office	Number of families	Percent of the refugee population	Phone Penetration
Addis Ababa	19,687	9.8	88.8%
Assosa Sub-Office	15,460	7.7	3.4%
Sub-office Melkadida (Dollo Ado)	24,541	12.2	5.9%
Sub-office Jijiga	7,206	3.6	81.6%
Sub-office Shire	64,951	32.2	32.1%
Sub-office Gambella	66,927	33.2	0.4%
Settlements-AA	2,752	1.4	0.1%

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Before selecting the survey strata, the team attempted to better understand the type of bias observed by focusing on refugees with access to phones. To do so, we looked at socio-economic outcomes for refugees with access to a phone number and those without. There are clear differences with respect to phone number ownership in Addis Ababa but particularly outside with refugees with phone numbers seemingly better off with better educational outcomes, smaller family sizes (larger households are typically poorer), and length of stay in Ethiopia (see Tables 4, 5, and 6 in the Annex).

Refugees living in different geographic regions face different challenges, have different disposable coping strategies, and receive different types of assistance from humanitarian organizations, even if they are from the same country of origin. This can be due to many factors including refugees arriving in different waves over time or due to multiple conflicts within a country. In Jijiga sub-office, almost all refugee households are camp-based households (99%) while in 8 in 10 refugee households in Shire are residing in camps (Table 7 in the Annex).

REPRESENTAT- IVENESS OF THE SAMPLE



In Ethiopia, we have used the geographic division of UNHCR sub-office combined with the phone penetration rate to inform which stratification is best placed to yield robust representative results of refugee populations. As such, there are seven possible strata composed of Addis Ababa town, the settlements around Addis Ababa, and the five sub-offices outside Addis

Among these possible strata, we consider only strata with a phone penetration higher than 30 percent in order to (i) have enough phone numbers and (ii) not introduce too high of a sampling bias. As highlighted above, an initial analysis was done using proGres data to test if refugees with phones compared to those without phones differed in terms of welfare. We find consistent and statistically significant results for all populations that refugees with registered phones are seemingly better off. Based on this criterion of 30 percent phone penetration, we end up with three strata that are (i) Addis Ababa; (ii) Sub-office Jijiga; and (iii) Sub-office Shire. While we would have liked to include more sub-offices (and thus other refugee groups) given the extremely low phone penetration rates—less than 10 percent of registered refugees have phones—it is not a statistically viable approach as any survey enumerated for other refugee groups covered by the remaining sub-offices will not yield representative results for these refugee groups.

In more detail, we selected three survey domains, representative of the following refugee groups:

1. **Refugees in Addis Ababa** are out-of-camp refugees, referring to refugees living in Addis Ababa, comprising varied nationalities with different protection and humanitarian needs – they are mainly Eritreans (87%) , Yemenis (7%), and Somalis (2%).
2. **Eritrean refugees** are camp-based refugees which roughly approximate those served by the sub-office in Shire (99.9% is of Eritrean origin); and
3. **Somali refugees** are camp-based refugees which roughly approximate those served by the sub-office in Jijiga (above, 97.7% is of Somali origin).

These three survey domains were considered as explicit sampling strata. The sample size was determined based on power calculations. Power calculations were considered design effects and intra-cluster correlation coefficients from the 2017 Skills Survey. The sample size was selected at 480 households for AA, 580 households for Eritreans in the sub-office Shire and 590 households for Somali refugees in the sub-office Jijiga.

Table 3 below shows the number of refugee households surveyed per domain. Overall, 858 camp refugee households are surveyed, corresponding to 51 percent of the sample size. Table 4 shows the camp refugee households which were included in our sample. Indeed, 7 camp refugee households out of 10 in the sample are Somali refugee households from the sub-office of Jijiga.

Table 1: Distribution of the population across locations and phone penetration per location

Sample Stratum	Number of sampled refugee households	Number of camp refugee households	Number of out-of-camp refugee households
<i>Addis Ababa</i>	526	-	521
<i>Eritrean refugees</i>	561	270	289
<i>Somali refugees</i>	589	581	8

Table 4: The refugee camps included in the sample

	Camps	Number of camp based refugees in sample	Percent of total camp based refugees in sample
<i>Somali households in Jijiga</i>	Kebribeyah	287	33.4%
	Aw-bare	160	18.6%
	Sheder	134	15.6%
<i>Eritrean households in Shire</i>	Hitsats	116	13.5%
	Mai-Aini	104	12.1%
	Adi-Harush Settlement	37	4.3%
	Shimelba	11	1.3%
	Ayisaita	2	0.2%
<i>Refugees in Addis Ababa</i>	Addis Ababa Settlements	5	0.6%
	Other	2	0.2%
	Total	858	100%

SAMPLING WEIGHTS



The sample was drawn using a simple random sample without replacement. Expecting a high non-response rate based on experience from the HFPS-HH, we drew a stratified sample of 3,300 refugee households for the first round.

To obtain unbiased estimates from the sample, the information reported by households needs to be adjusted by a sampling weight (or raising factor) w_h . To construct the sampling weights, we follow the steps outlined in Himelein, K. (2014)², though we do not have information for all of the steps:

1. Begin with base weights. Base weights will equal 1 for all intents and purposes.
2. Derive attrition-adjusted weights for all individuals by running a logistic response propensity model based on characteristics of the household head (i.e. education, labor force status, demographic characteristics), characteristics of the household (consumption, assets, financial characteristics), and characteristics of the dwelling (house ownership, overcrowding). While the proGRES database is limited in the number of socio-economic variables, we have characteristics of the household head and household.
3. Trim weights by replacing the top two percent of observations with the 98th percentile cut-off point; and

² Himelein, K. (2014). Weight Calculations for Panel Surveys with Subsampling and Split-off Tracking, *Statistics and Public Policy*, 1:1, 40-45, available at <http://dx.doi.org/10.1080/2330443X.2013.856170>.

4. Post-stratify weights to known population totals to correct for the imbalances across the sample. In doing so, we ensure that the distribution in the survey matches the distribution in the proGRES database.

Additional technical details and explanations on each of the steps briefly outlined above can be found in Himelein, K. (2014).

DATA COLLECTION



During the roughly three-week period of data collection, each sampled household is called up to three times a day at different hours, with a minimum of three hours between each call, for a minimum of three consecutive days, and a total of nine attempts. The initial calls were made Monday to Saturday, 8:30am to 6:00pm. The respondent is one member of the household, typically the household head. Only in cases where the household head cannot be reached despite numerous call-backs, another knowledgeable household member is selected as the respondent.

When possible, a household interview is rescheduled outside of working hours and days if preferred by the respondent. Also, if a non-household member (usually a reference number for the intended household) was reached or a household member who is unable to answer questions received the call, the information of the household head or a knowledgeable household member is requested for completing the survey or a followed up plan with them is sought if unavailable. Once all these interview penetration strategies were exhausted with no positive response, the household is considered as non-response and was replaced with a different household from the replacement sample.

In each survey domain, additional refugee households are sampled to serve as replacement households in case of non-response.

ANNEX

Table 5: Household (head) characteristics by phone ownership, Addis Ababa

	<i>HAS PHONE: NO</i>			<i>HAS PHONE: YES</i>			<i>TWO-TAILED</i>
	Mean	N Obs.	Std. Dev	Mean	N Obs.	Std. Dev	P value
AGE	27.73	2223	10.43	31.37	17465	11.04	0.00
FAMILY SIZE	1.67	2223	1.39	1.70	17465	1.32	0.43
FEMALE HEAD HH	0.68	2223	0.47	0.58	17465	0.49	0.00
MARRIED	0.29	2178	0.45	0.40	16935	0.49	0.00
SEPARATED/DIVORCED	0.00	2178	0.03	0.00	16935	0.04	0.35
SINGLE	0.70	2178	0.46	0.58	16935	0.49	0.00
WINDOW	0.01	2178	0.11	0.02	16935	0.13	0.17
FEAR OF PERSECUTION	0.34	1691	0.47	0.24	15894	0.43	0.00
INSECURITY	0.36	1691	0.48	0.58	15894	0.49	0.00
OTHER REASONS	0.30	1691	0.46	0.18	15894	0.38	0.00
COO: ERITREA	0.93	2223	0.25	0.88	17465	0.32	0.00
COO: SOMALIA	0.02	2223	0.15	0.01	17465	0.11	0.00
COO: SSUDAN	0.00	2223	0.05	0.00	17465	0.06	0.26
COO: SUDAN	0.00	2223	0.05	0.00	17465	0.06	0.26
COO: OTHER	0.04	2223	0.20	0.10	17465	0.30	0.00
TENURE IN ETHIOPIA (YEARS)	2.95	2223	3.04	4.34	17465	3.35	0.00
NO EDUCATION	0.07	2216	0.25	0.07	17456	0.26	0.22
SOME PRIMARY	0.13	2216	0.33	0.11	17456	0.31	0.01
COMPLETED PRIMARY	0.04	2216	0.19	0.04	17456	0.19	0.88
SOME SECONDARY	0.34	2216	0.47	0.28	17456	0.45	0.00
COMPLETED SECONDARY	0.13	2216	0.34	0.13	17456	0.34	0.94
TERTIARY	0.30	2216	0.46	0.37	17456	0.48	0.00
NOT WORKING	0.29	1368	0.45	0.25	12760	0.43	0.01

Table 6: Household (head) characteristics by phone ownership, sub-office Jijiga

	<i>HAS PHONE: NO</i>			<i>HAS PHONE: YES</i>			<i>TWO-TAILED TEST</i>
	Mean	N Obs.	Std. Dev	Mean	N Obs.	Std. Dev	P value
AGE	39.37	1333	13.74	41.62	5878	13.34	0.00
FAMILY SIZE	4.37	1333	3.48	5.59	5878	3.71	0.00
FEMALE HEAD HH	0.60	1333	0.49	0.65	5878	0.48	0.00
MARRIED	0.61	1216	0.49	0.67	5479	0.47	0.00
SEPARATED/DIVORCED	0.01	1216	0.12	0.02	5479	0.12	0.65
SINGLE	0.27	1216	0.45	0.21	5479	0.41	0.00
WINDOW	0.11	1216	0.31	0.10	5479	0.30	0.65
FEAR OF PERSECUTION	0.00	1331	0.03	0.00	5877	0.02	0.77
INSECURITY	0.99	1331	0.09	0.99	5877	0.08	0.59
OTHER REASONS	0.01	1331	0.08	0.01	5877	0.07	0.64
TENURE IN ETHIOPIA (YEARS)	13.06	1333	7.73	19.42	5878	8.79	0.00
NO EDUCATION	0.62	1248	0.48	0.68	5519	0.46	0.00
SOME PRIMARY	0.10	1248	0.30	0.10	5519	0.30	0.98
COMPLETED PRIMARY	0.02	1248	0.15	0.02	5519	0.15	0.96
SOME SECONDARY	0.14	1248	0.35	0.11	5519	0.31	0.00
COMPLETED SECONDARY	0.01	1248	0.12	0.01	5519	0.08	0.04
TERTIARY	0.09	1248	0.29	0.07	5519	0.26	0.03
NOT WORKING	0.75	943	0.44	0.72	4346	0.45	0.15

Table 7: Household (head) characteristics by phone ownership, sub-office Shire

	HAS PHONE: NO			HAS PHONE: YES			TWO-TAILED
	Mean	N Obs.	Std. Dev	Mean	N Obs.	Std. Dev	P value
AGE	28.68	44131	12.65	30.50	20760	11.41	0.00
FAMILY SIZE	2.10	44131	2.10	2.40	20760	2.28	0.00
FEMALE HEAD HH	0.45	44131	0.50	0.45	20760	0.50	0.94
MARRIED	0.26	42646	0.44	0.35	19994	0.48	0.00
SEPARATED/DIVORCED	0.01	42646	0.10	0.01	19994	0.08	0.00
SINGLE	0.70	42646	0.46	0.62	19994	0.48	0.00
WINDOW	0.03	42646	0.16	0.02	19994	0.15	0.32
FEAR OF PERSECUTION	0.36	42109	0.48	0.45	20395	0.50	0.00
INSECURITY	0.45	42109	0.50	0.39	20395	0.49	0.00
OTHER REASONS	0.19	42109	0.40	0.16	20395	0.37	0.00
TENURE IN ETHIOPIA (YEARS)	3.42	44131	4.27	3.80	20760	3.84	0.00
NO EDUCATION	0.21	43893	0.41	0.16	20635	0.37	0.00
SOME PRIMARY	0.17	43893	0.38	0.14	20635	0.35	0.00
COMPLETED PRIMARY	0.07	43893	0.26	0.06	20635	0.23	0.00
SOME SECONDARY	0.34	43893	0.47	0.35	20635	0.48	0.01
COMPLETED SECONDARY	0.07	43893	0.25	0.09	20635	0.29	0.00
TERTIARY	0.14	43893	0.35	0.21	20635	0.41	0.00
NOT WORKING	0.84	30520	0.36	0.81	15067	0.39	0.00